EXHIBIT D

Report of Fletcher G. Driscoll, Ph.D.

In the matter of:

City of New York,
Plaintiff

Case No. 04-Civ-3417

vs.

Amerada Hess Corp., et al.,
Defendants

March 9, 2009

Prepared by
Fletcher Driscoll & Associates LLC

2. Sources of MTBE at Publicly-Owned Facilities in Queens

During the past two decades, the City failed to properly investigate, manage, and upgrade its petroleum storage tanks, resulting in Consent Orders with both State and Federal environmental regulators. As a result of their deficient management, releases of MTBE occurred at numerous City-owned sites throughout Queens.

The 1984 amendments to the Resource Conservation and Recovery Act (RCRA) required the United States Environmental Protection Agency (USEPA) to regulate underground storage tanks (USTs) (USEPA, 2008a). This regulation set into motion aggressive investigation and re-equipping of petroleum storage facilities in the United States from the late 1980s to 1998. Federal regulations and standards for tank upgrades, leak detection, spill prevention, and tank closure were promulgated and deadlines set. By December 1993 release detection requirements were to be implemented, and upgrades or replacement of existing USTs were required by December 1998. Additionally, the NYSDEC created a Petroleum Bulk Storage program in 1985 which required registration of USTs by December 27, 1986 and tank tightness testing for many tanks by December 1987 (NYSDEC, 2009).

The City failed to implement universal tank tightness testing at numerous tanks by a 1987 state-imposed deadline and to upgrade and properly investigate numerous tanks by a 1998 federally-imposed deadline.

New York City and other public entities failed to properly manage their USTs despite federal and state regulations. As a result of these management failures, the City entered into Consent Orders with both the NYSDEC and USEPA (NYSDEC, 1994; USEPA, 2006).[10] Failures to comply with federal storage tank regulations were alleged by NYSDEC in a 1994 Consent Order and by the USEPA in a 2002 Complaint and a 2006 Consent Decree (USEPA, 2002; USEPA, 2006). The City failed to comply with state and federal requirements to:

- Conduct tank tightness testing by a 1987 deadline,

[10] Another public entity, the New York City Transit Authority has entered into two Consent Orders with the NYSDEC because of poor management of USTs and insufficient site investigations and cleanups. The New York City Transit Authority is responsible for the Jamaica Bus Depot, several blocks north of Well 6D, which had a release of 95,000 gallons of heating oil and diesel fuel to groundwater (URS, 2002).

- o Properly register storage tanks,
- o Implement federally required leak detection monitoring by a 1993 deadline, and
- o Comply with requirements to upgrade or close USTs by a 1998 deadline.

NYSDEC reported in its 1994 Consent Order that the City had 1162 storage tanks at 488 vehicle refueling locations (NYSDEC, 1994). The Consent Order indicated the City had failed to conduct required tank tightness testing at 1048 tanks by the 1987 deadline, and still had not conducted testing at 869 tanks by 1994. Also, the City had failed to register at least 111 storage tanks. Because the City had failed to conduct tank tightness testing, the NYSDEC concluded that the City is "unable to determine whether particular tanks that were not tested had leaked and whether remedial measures are necessary to contain, clean up and remove any petroleum that had spilled" (NYSDEC, 1994). As a result of the 1994 Consent Order with NYSDEC, the City was required to submit bi-monthly status reports regarding its progress in implementing tank tightness testing, site investigations, and any necessary remedial actions.

Despite the 1994 Consent Order with NYSDEC, the City did not comply with UST regulations, and in 2002 the USEPA filed a Complaint against the City in U.S. District Court (USEPA, 2002). The Complaint reported that the City had failed to:

- o Implement leak detection at many of its USTs through at least 2002 despite the 1993 federal deadline,
- o Comply with required tank upgrades by the December 22, 1998 deadline,
- o Reveal to the USEPA, until between 1999 and June 2001, that hundreds of the City's USTs were not in compliance with these upgrade requirements,
- o Permanently close USTs as required, resulting in a failure to conduct site investigations to ascertain possible subsurface contamination, and
- o Report and investigate suspected releases when "UST system alarms indicated potential releases."

In 2006 the USEPA and New York City agreed to a Consent Decree in which the City did not admit any liability in regard to the 2002 Complaint and in return agreed to:

- o Pay a $1.3 million civil penalty,
- o Comply with upgrade or permanent closure requirements within one year,
- o Comply with release detection and notification requirements within 30 days,

- Implement a Centralized Monitoring Program for release detection at Police, Fire, and Transportation Department USTs,
- Submit quarterly status reports to the USEPA regarding the Centralized Monitoring Program, and
- Submit quarterly status reports regarding compliance with tank requirements.

In summary, the Consent Orders and Complaints by USEPA and NYSDEC demonstrate that New York City failed to properly manage its UST network during the period of peak MTBE use in New York. Because the City failed to implement various UST upgrades and leak detection requirements, numerous MTBE releases were probably not detected in a timely fashion.

At least 19 confirmed or highly likely releases of MTBE to groundwater have occurred at publicly-owned sites in and near the JWS service area.

Plaintiff expert, David Terry, modeled forty-two sites with potential MTBE releases in the vicinity of the focus wells. Only one city-owned and three publicly-owned sites, however, were included in his models. But, based on a review of the City's bi-monthly status reports submitted to NYSDEC, other lists of City USTs, and documents provided by the City in relation to this case, there are at least 68 known spill sites at publicly-owned facilities in Queens (Figure 2-1 and Table 2-1). Thirty-two sites within Terry's model area were reviewed to determine if they were confirmed, likely, possible, or unlikely sources of MTBE in groundwater.[11] At least 18 City-owned sites and one other publicly-owned site have had confirmed or likely releases of MTBE to groundwater within the area modeled by Terry (Figure 2-2 and Table 2-2).[12,13] No groundwater data and minimal site information are available for review for 12 city-owned sites, precluding a definitive determination of the degree of possible MTBE contamination at these

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[11] Sites with groundwater analytical data, consultant reports, or NYSDEC spill reports indicating MTBE was detected in groundwater were classified as "confirmed." Sites with reported gasoline releases and groundwater contamination, but no confirmed MTBE detections (because site data were unavailable for review) were classified as "likely." Sites with gasoline releases that affected soil, but had no confirmed groundwater contamination were classified as "possible." Sites which had small releases, types of releases less likely to contain significant mass of MTBE (e.g. fuel oil, waste oil), or confirmed absence of MTBE in groundwater samples were classified as "unlikely."

[12] One of the confirmed MTBE sites, the Jamaica Bus Depot, may be affected by MTBE from an upgradient source.

[13] Terry modeled two additional publicly-owned sites as sources of MTBE, but these sites were considered unlikely sources in this analysis because of minimal evidence of significant releases or groundwater contamination. Cohen and Bell (2009) identified a third publicly-owned site as a potential source of the MTBE found in Well 45, but there was no confirmed groundwater contamination at that site.

only one sample had a concentration greater than 20 μg/L (Moran et al., 2004). In a second study of treated drinking water in the northeastern and mid-Atlantic region of the United States, where population density and use of MTBE are generally high, MTBE was present at concentrations above 20 μg/L in samples in only 10 of the 1,194 community water supply systems (Grady and Casey, 2001). MTBE was not detected above 20 μg/L in the other two national studies. Statewide studies, also summarized by Williams and Pierce (2008), further demonstrate that few samples contained concentrations of MTBE above 20 μg/L (Table 3-1 and Figure 3-1). The results of these studies reveal that although MTBE is found in groundwater samples at a high frequency, it is seldom found at concentrations above federal limits established to protect consumers from unpleasant odor and taste.

Analytical results for wells in the Jamaica well field exhibit trends similar to the national studies. MTBE has been found (at any concentration) in a high number of the raw water samples tested – 650 of the 1001 (65 percent of the samples). This is not unexpected because the samples were collected in an area that is densely populated where there was extensive use of MTBE to reduce air pollution. But of the 1001 raw water samples collected at 54 of the Jamaica wells, MTBE has been present at concentrations above 10 μg/L (the NYSDOH MCL) in only 136 of the raw water samples collected at eight of the 54 wells. The number of samples and wells affected by different concentrations of MTBE are shown in Figure 3-2.

The number of samples and wells affected by MTBE at different concentrations in other data sets from Long Island show a similar trend in that MTBE is found in far fewer samples at concentrations that would require treatment. Figure 3-3 summarizes the number of detections and wells affected by MTBE at certain concentrations in Suffolk County. The graph in Figure 3-4 shows similar data for the USGS wells that have been sampled in Queens County. It is clear from these data sets that implications made by Cohen and Bell (2009) about the severity of the occurrence of MTBE in Long Island groundwater based only on its detection frequency, greatly exaggerates the actual threat of MTBE to the Jamaica wells.

The effects of MTBE contamination are relatively short-lived in the hydrogeologic environment found on Long Island.

Many factors, such as advection, dispersion, biodegradation and active remediation limit the length of time MTBE contamination will affect wells in Queens. The following opinion was presented in Dr. Driscoll's earlier report dated January 23rd, 2009:

> "The geologic and hydraulic characteristics of the aquifers underlying Queens County favor the rapid transport of MTBE through the groundwater system. The Upper Glacial (shallow) aquifer is the most susceptible to MTBE releases. If control and remediation of the sources are effective, however, the volume of contaminated water and its residence time are limited in this aquifer."

The opinion was supported using field data at Jamaica Well 10 where, following remediation of the MTBE source, concentrations at Well 10 fell from 413 μg/L in December 1998 to below 10 μg/L in July 2000 (Figure 3-5). Only 3.5 years after discovery of the contamination, Well 10 was returned to service in August 2001. MTBE has not been detected in the well since August 2006. Additional support for limited times that MTBE occurs at wells is found at Station 6 where Malcolm Pirnie used a model to estimate that MTBE would only affect the wells for 1.5 to 3 years following start-up of the wells (Cohen and Kim, 2007; Bell et al., 2008). Although some technical problems have been identified in using the Malcolm Pirnie model (Driscoll, 2009), it is clear that the predicted time period is reasonable based on the field experience at Well 10.

The extent and severity of occurrences of MTBE in groundwater have decreased in states that have banned the use of MTBE.

Cohen and Bell (2009) state that "...plumes of MTBE contaminated groundwater are expected to persist and continue to spread and degrade water resources in the coming decades," although recently collected samples indicate that both frequency of occurrence and concentrations are declining in states that have banned or limited the use of MTBE. Groundwater samples in the USGS National Water Information System (NWIS) database were collected for nine states that at some time used more than 2,000 barrels/day of MTBE but banned or limited its use to less than 0.5% maximum volume in gasoline by January 2006.[20] The frequency that MTBE was detected per year is shown in Figure 3-6. During 2003 to 2005, MTBE was detected in over 25 percent of the groundwater samples; the highest frequency for concentrations over 10 μg/L was in 2005 when it was found in 2.3 percent of the samples. The data for 2007 and 2008 demonstrate a significant decline in both the frequency of detections as well as the reported concentrations for MTBE (Figure 3-6). Although there may be some variations resulting from irregular sampling populations and locations, the marked change in the detection frequency from

[20] States using more than 2,000 barrels/day were identified using Table 2 of Lidderdale (2003). States banning or limiting the use of MTBE were identified using Exhibit 13-22 of USEPA (2008b). The nine states identified were: AZ, CA, CT, IL, KY, MO, MT, NY and SD.

35 percent in 2003 to less than 3.5 percent in 2007 is important and most likely caused by the reduction or elimination of MTBE use in the states. In 2008 MTBE was not found at concentrations greater than 1 μg/L in any of the 169 samples collected in the states that had banned or limited the use of MTBE by January 2006.[21]

Cohen, Dr. Graham Fogg and others have cited a 2003 USGS report by Spinello et al. that states MTBE was the most frequently detected contaminant (at 76 percent) in samples from Kings and Queens Counties (Cohen and Bell, 2009; Fogg, 2008). Although it has not been possible to duplicate exactly the USGS' calculated percentages using data from their NWIS database, the USGS reports for the two subsequent years show declining occurrences of MTBE. In 2004, MTBE was present in 66 percent of the samples collected in these counties and in 2005 it was detected less frequently than trichloromethane which was present in 54 percent of the samples. This significant decline in detection frequency over just two years is noteworthy and coincides with the timing of the ban in New York (January 1, 2004).

In a recent study conducted at gas stations in New Hampshire, it was found that concentrations of MTBE have decreased at gas stations since the use of MTBE was banned (Tarr and Galonski, 2007).[22] Data from 78 monitoring wells were collected at 25 randomly chosen gasoline sites across the state. At some locations soil removal had occurred; most of the sites were being remediated using monitored natural attenuation methods. The study showed that while 68 percent of the monitoring wells exhibited declining MTBE concentrations prior to limiting the amount of MTBE in gasoline, 85 percent of the wells showed declining trends after the ban. Furthermore, almost half of the wells showed an accelerated rate of decline in MTBE concentrations after the use of MTBE-containing gasoline ceased. This analysis demonstrates a decline in concentrations (within a 95 percent confidence level) within only a year of banning the use of MTBE. It is expected that additional sampling at these sites will substantiate a continued decline in levels of MTBE.

Analysis of the Jamaica well field data shows a steady decline in the detection frequency and concentrations of MTBE over time since the late 1990s (Figure 3-7). In 1997 MTBE was present (at any concentration) in almost 80 percent of the samples and in 1998 it was found at

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[21] The USGS collected samples in Queens County in 2008 and provided provisional results to New York City (telephone conversation with Stephen Terracciano, USGS, February 2009). Unfortunately, the City has not provided the results to the defendants so the data could not be included in this analysis.

[22] MTBE was limited to less than 0.5 percent by volume effective January 1, 2007; most of the gasoline facilities stopped using gasoline with MTBE in early May 2006 (Tarr et al., 2007).

concentrations greater than 10 µg/L in almost 20 percent of the samples.[23] By 2007, MTBE was detected in less than 30 percent of the samples and was over 10 µg/L in eight samples, or only four percent of all samples. It should be noted, however, that all of the eight samples with concentrations greater than 10 µg/L were collected during four sampling events in February 2007 at Well 6D. In both 2006 and 2008, there were no samples collected with concentrations over the NYSDOH MCL. Because the sampling population has not been consistent for the Jamaica wells from year to year (because the wells have not been maintained or used by NYC) trend analyses from one year to the next cannot be made. The overall decline, however, in both the detection frequency and the concentration of MTBE shown in Figure 3-7 is obvious. Analyses presented in the next section will demonstrate that this strong decline is unique to MTBE and is not caused by the irregular sampling population.

Perchloroethene (PCE) and trichloroethene (TCE) are often detected more frequently and are more persistent in groundwater than MTBE.

As discussed above, many studies in the late 1990's and early 2000's found MTBE to be one of the most commonly detected chemicals in groundwater, even though it is rarely found at concentrations greater than state or federal regulatory guidelines. In order to evaluate the severity and persistence of MTBE in Long Island groundwater, it is worthwhile to compare its occurrence to that of other contaminants. Two chemicals, PCE and TCE, were selected for this comparison because of: 1) their common use as industrial solvents; and 2) they are generally found in groundwater in densely populated areas, such as western Long Island.

The occurrence of MTBE, PCE and TCE in three Long Island data sets is compared in Figures 3-8, 3-9 and 3-10. Bars or columns are used in these figures to show the total number of samples analyzed for these three chemicals, as well as the number of samples with detections, concentrations over 1 µg/L, and concentrations over the NYSDOH MCL. The results for the Suffolk County wells are shown in Figure 3-8, the USGS Queens wells in Figure 3-9, and the Jamaica wells in Figure 3-10. In both the Suffolk County and USGS Queens data sets, MTBE is detected (at any concentration) in more samples than for PCE or TCE. PCE and TCE, however, are found in many more samples than MTBE at concentrations over 1 µg/L, and over their respective NYSDOH MCLs.

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[23] At the time these samples were taken in 1998, the MTBE guideline was 50 µg/L as an unspecified contaminant; NYSDEC did not issue a guideline for MTBE until 2000.

means of remediation. Main sources of contamination are volatile organic contaminants (VOCs) and iron" (NYSDEC, 1997). At that time MTBE had not yet been detected in the Station 6 wells.

MTBE detections at Station 6 wells occurred from 2000 to 2008 during sampling and pilot testing associated with the Brooklyn Queens Aquifer Study. The City did not distribute water from Station 6 during this time.

As a result of the Brooklyn-Queens Aquifer Feasibility Study (MPI, 1999), the NYCDEP replaced the Wells 6, 6A, 6B, 6D, and 33 in 2001 and began designing a plant to treat VOCs, iron, and hardness at Station 6. A Pilot Test to test iron, manganese, and hardness removal technologies was conducted from February 2002 through February 2003.

MTBE was first detected at Station 6 in April 2000 at a concentration of 1.5 µg/L in Well 6D. The concentrations of MTBE in the Station 6 wells peaked during the year-long Pilot Test in 2002 and 2003. The peak concentrations of MTBE at the Station 6 wells were 2.3 µg/L in Well 6, 8.9 µg/L in Well 6A, 6.5 µg/L in Well 6B, and 350 µg/L in Well 6D. Only the concentrations of MTBE at Well 6D exceeded the state MCL of 10 µg/L. Subsequent to the Pilot Test, the concentration of MTBE at each of the Station 6 wells has declined. MTBE was first detected in Well 33 at 0.73 µg/L in April 2000. The peak concentration in this well occurred a few days later at 2.1 µg/L. Subsequent concentrations have ranged from non-detect to 0.63 µg/L. MTBE concentrations at Well 33 have never exceeded the State MCL. Plots of MTBE detections through time at the five Plaintiff's focus wells are presented in Figures 5-1 and 5-2.

Attenuation and transport factors suggest MTBE concentrations at Station 6 will be non-detectable when pumping commences in 2016 or 2017.

In general, MTBE detections and concentrations in wells decline rapidly over time for several reasons: 1) cessation of MTBE use after January 1, 2004; 2) remedial measures taken at spill sites; 3) the low rate of adsorption of MTBE to aquifer materials; 4) the intrinsic degradation potential of MTBE in aquifer environments; 5) the high rate of groundwater flow; and 6) other attenuation factors such as dispersion. The downward trends in the frequency of detections and concentrations are evident in Figures 3-1 to 3-15 and 5-1 and 5-2 even though only four years have elapsed since the use of MTBE ceased in New York. MTBE currently near Station 6 will continue to move downgradient away from the wells and in the process become more fully attenuated. The attenuation factors and data that I have considered above suggest that MTBE will not be detected when Station 6 becomes fully operational.

Treatment at Station 6 will be necessary for other VOCs such as PCE.

PCE has been a persistent contaminant detected in groundwater samples collected from the Station 6 wells. In the past decade, PCE concentrations have been as high as 160 µg/L in Well 6B, and PCE has been detected at concentrations exceeding the MCL of 5 µg/L in Wells 6, 6A, 6B and 6D (Figure 5-3). MPI has assumed an influent concentration of 160 µg/L for VOC treatment design purposes (MPI, 2007b). MPI and the City have been unable to identify the source of the PCE found in the Station 6 wells.[31] Because of the persistence and ubiquity of PCE in Queens (as described in Section 3) and failure to identify the source(s) of PCE in Station 6 wells, it is clear that VOC treatment will need to be installed at the Station 6 wells.

Because MTBE concentrations at nearby gas stations have decreased rapidly and presently have minimal on-site MTBE concentrations, the sites will not serve as sources of MTBE when Station 6 wells begin being pumped in 2016 or 2017, at least 12 years after use of MTBE ceased.

Cohen and Bell (2009) provide an analysis of the potential sources for the MTBE detected in Station 6 Wells to date. Their analysis suggests that the sites at 105-15 Merrick Boulevard and 108-46 Merrick Boulevard are the two most likely sources, based on proximity, locations within the estimated historic capture zone, and the presence of significant concentrations of MTBE in groundwater. However, concentrations at these two sites are already declining. Concentrations in any potential off-site plumes will also decline significantly over the next decade as a result of dispersion and biodegradation. These two gas stations, as well as a station at 165-25 Liberty Ave, are reviewed in more detail below.[32]

The 105-15 Merrick Boulevard site is located approximately 1,000 feet north of focus well #6D. The groundwater flow direction is to the south, toward the Station 6 wells. A release was first identified at this site in 1996 based on contaminated soil encountered during a tank removal (Toxics Targeting, 2008a). An investigation in 2004 identified MTBE in groundwater at a concentration of 2,800 µg/L in a temporary monitoring location (GW-6) in the vicinity of the removed USTs. The Limited Subsurface Investigation Report states, "there was no MTBE

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[31] MPI (2004) concluded that the West Side Corporation site is not a likely source for the PCE found in the Station 6 wells.
[32] Although more distant potential sources have been identified by Terry (2009) they are not discussed herein because of serious questions about the validity of his observations as discussed in Section 7.

detected in any soil sample collected including soil boring SB-6 where MTBE was detected at 2,800 µg/L in the groundwater" (Environmental Management, Inc., 2005). Subsequent investigations have included the installation of eight monitoring wells; four on site and four off site. MTBE detections have been primarily non-detect, with a few detections less than 10 µg/L (MIG Environmental, 2005, 2006, 2007, and 2008).

Thus, there has been no confirmed release of MTBE from the site at 105-15 Merrick. There is only one data point from a Geoprobe temporary monitoring location that indicated the presence of elevated levels of MTBE. The soil sample from the same location did not contain MTBE. Thus, it appears unlikely that the station was a source of the MTBE detected at the Station 6 wells. In any case, it is not an ongoing source of MTBE to the groundwater.

The site located at 108-46 Merrick Boulevard is less than 1,000 feet east of focus well #6D. A tank test failure was reported on October 25, 1988 and resulted in the assignment of a spill number. The original tanks were removed in 1995 and were noted to be in good condition. A Tank Closure Assessment was completed in April 2005. Analysis of groundwater samples collected from temporary soil borings drilled near the former UST area contained MTBE concentrations ranging from 29 to 89 µg/L (J.R. Holzmacher P.E., LLC, 2005).

Three monitoring wells were installed in 2005 (J.R. Holzmacher P.E., LLC., 2008a). MW-1, located near the new tank basin, had a concentration of 1,300 µg/L on August 1, 2005 that increased to a maximum of 17,000 µg/L on February 10, 2006. The highest concentration at MW-2, near the former tank basin, occurred on August 1, 2005 at 170 µg/L (J.R. Holzmacher P.E., LLC, 2008b). Six additional monitoring wells were installed in November 2007 and concentrations of MTBE in all of the wells except MW-1 were below NYS groundwater standards (J.R. Holzmacher P.E., LLC., 2008a). The consultant conducting the investigation suggested that MW-1 "may represent a localized, possibly stagnant and highly concentrated groundwater hotspot." (J.R. Holzmacher P.E., LLC., 2008a). It should be noted that this "hotspot" is located adjacent to the new tank basin and not in the vicinity of the former tank basin. A vacuum truck was used to remove water from MW-1 on a twice-monthly basis beginning April 3, 2008. Concentrations of MTBE in MW-1 have been decreasing steadily, and MTBE was not detected in a sample collected November 7, 2008 (J.R. Holzmacher P.E., LLC, 2008b).

The NYSDEC spill case for the 108-46 Merrick Boulevard site was closed on December 10, 2008 (NYSDEC, 2008a). From the available information on this site, it appears that the

highest concentrations of MTBE detected were associated with the new tank basin. No off-site plume was detected. On-site concentrations have decreased to non-detectable levels. Because there appears to be no on-going source at the station, to the extent that concentrations in Station 6 wells are affected by past releases from the site, these concentrations would be expected to decline rapidly.

The 165-25 Liberty Avenue site is approximately 0.5 mile north of the Station 6 wells. A release was reported at this site in 2000 when free product was found in a monitoring well (Toxics Targeting, 2008b). MTBE was subsequently detected in both on-site and off-site monitoring wells. The maximum on-site concentration was 4,080 μg/L detected in MW-3 in 2000. The maximum off-site concentrations was 16,300 μg/L detected in 2001 at W-33 (Delta, 2008a).

Remediation of the 165-25 Liberty Avenue site has included a soil vapor extraction/air sparge system that was operational at least by the third quarter of 2003. The system reached asymptotic removal (low) levels in May of 2004, and was decommissioned during site demolition in October 2004. Site demolition also included the excavation and removal of USTs and the removal of approximately 211 tons of petroleum affected soils. Remaining soils were below the NYS cleanup objectives (Toxics Targeting, 2008b) All groundwater samples (from 24 monitoring wells) collected during the second quarter 2008 were below the State standard of 10 μg/L for MTBE (Delta, 2008a).

The 165-25 Liberty Avenue site was not considered to be a likely source for the current and past MTBE detections at Well 6D (Cohen and Bell, 2009). This was based on the 2007 Desktop Evaluation conducted by MPI which indicated that the plume from 165-25 Liberty Avenue would be captured by the groundwater recovery system at the Jamaica Bus Depot, to the south (Cohen and Kim, 2007a). In addition, monitoring wells along 165th St, between the service station and Well 6D had low to non-detect concentrations of MTBE.

In summary, both on and off site data indicate these three sites will not be future sources of MTBE. While off-site MTBE concentrations may temporarily exist at some remediated sites, biodegradation, dispersion and other physical and chemical attenuation processes will cause a rapid decline in MTBE concentrations off site. Furthermore, MTBE does not sorb readily to soil particles and with the rapid groundwater velocities in the Upper Glacial aquifer any effects of off-site MTBE concentrations where there is not a continuing source will be short-lived. Data presented in Section 3 of this report demonstrate clearly that MTBE tends to exist in wells for